



ZTEC™ B Series Filter Cartridges

*Pleated Polyethersulfone (PES) Membrane
for Bioburden Reduction in Beverages
and Biopharmaceuticals*



Product Specifications

Media: Asymmetric
Polyethersulfone Membrane

Inner core, end caps, cage: Polypropylene

Support layers: Spunbonded
Polypropylene

Gaskets/O-Rings:

Buna-N, EPDM, Silicone, Teflon
Encapsulated Viton (O-Rings only),
Teflon (gaskets), Viton

Micron ratings: 0.2, 0.45, 0.65 μm

Dimensions

Nominal lengths:

9.75" 10" 20" 30" 40"
24.8 25.4 50.8 76.2 101.6 cm

Outside diameter: 2.7" (6.9 cm)

Inside diameter: 1.0" (2.54 cm)

Surface area: 7.6 ft² (0.7 m²)
per 10" element

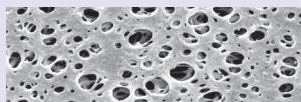
Operating Parameters

**Maximum sustained
operating temperature:**
176°F (80°C) at 20 psid (1.38 bar)

Maximum differential pressure:
80 psid @ 70°F (5.5 bar @ 21°C)
40 psid @ 160°F (2.8 bar @ 71°C)

Maximum reverse differential pressure:
40 psid @ 70°F (2.8 bar @ 21°C)

Recommended change-out pressure:
35 psid (2.4 bar)



ZTEC B Bioburden Reduction grade membrane cartridges provide highly consistent performance for bioburden reduction and particle removal across a wide range of beverage, pharmaceutical and biological fluids. The naturally hydrophilic PES membrane filters provide exceptional flow rates, long on-stream life, broad chemical compatibility and have no added surfactants to contribute to extractables. The cartridges are integrity testable and steamable to assure reliable service in critical applications.

FEATURES & BENEFITS

- Manufactured in an ISO Class 7 Cleanroom Environment
- 100% flushed with ultrapure DI water and integrity tested
- Repeatably steamable/sanitizable
- High retentions up to 10⁷/cm² challenged for bacteria and yeast
- Pore size, lot and serial number are stamped on each filter element for identification and traceability
- Complete qualification guide available

CERTIFICATIONS

- USP Class VI: Meets USP Class VI Biological Test for Plastics
- FDA Listed Materials: All materials comply with FDA Title 21 of the Code of Federal Regulations Sections 174.5, 177.1520, and 177.2440 as applicable for food and beverage contact.
- European Directive for Food Contact: European Regulation No. 1935/2004 and European Regulation 10/2011: Tested for migration behavior and is suitable for contact with all kinds of foodstuffs with minimal rinse-up. Data available upon request.

TYPICAL APPLICATIONS

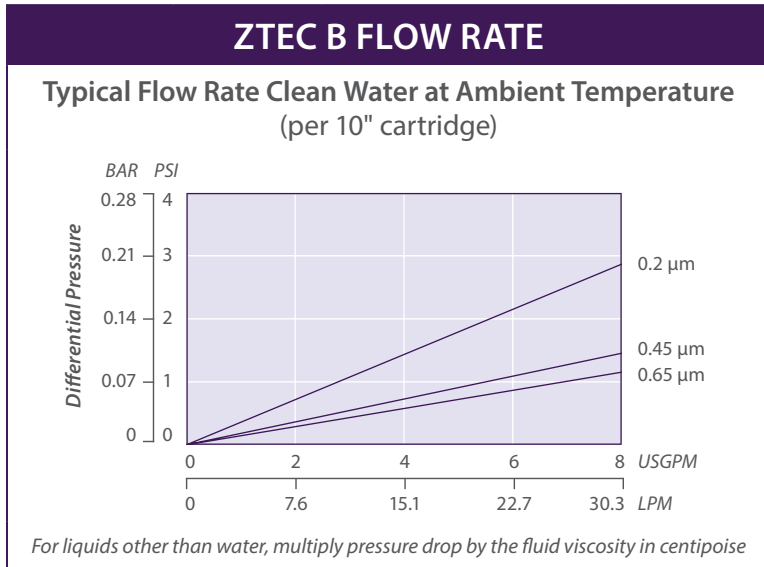
- Bottled Water
- Reagent Chemicals
- Buffers
- Ophthalmic Solutions
- LVPs
- Juices
- Culture Media

PERFORMANCE SPECIFICATIONS

- Hot DI Water: Filter cartridge will withstand temperatures of 185°F (85°C) for up to 30 consecutive minutes.
- Cleaning/Sanitization: Compatible with most common chemical cleaning, sanitizing and sterilizing agents and with pH range from 1–14. Consult factory for specific compatibility information.
- Steam/Autoclave: Cartridges may be steamed or autoclaved for at least 50 thirty-minute cycles @ 275°F (135°C).

ZTEC B NOMENCLATURE INFORMATION					
Filter Type	Retention Rating (microns)	Nominal Length (inches)		End Configuration	Gasket or O-Ring
ZTEC B Series	0.2	-5	-20	P Double Open End	B Buna-N
	0.45	-9.75*	-30	P2 226/Flat Single Open End	E EPDM
	0.65	-10	-40	P3 222/Flat Single Open End	S Silicone
				P7 226/Fin Single Open End	T Teflon encap. Viton (O-Rings only)
			P8 222/Fin Single Open End	T Teflon (gaskets)	
			AM Single Open End, Internal O-Ring	V Viton	
			NPC Double Open End, Internal O-Ring		
Example: ZTEC B 0.2-20P2E					
ZTEC B	0.2	-20		P2	E

*Available only for DOE (P) configuration



INTEGRITY TEST SPECIFICATIONS

Minimum Bubble Point values and maximum Diffusive Air Flow (per 10-inch cartridge) values for ZTEC B filters wet with water:

Pore Size	Bubble Point	Diffusive Air Flow
0.2 µm	≥ 38 psig (2.8 bar)	≤ 35 cc/min @ 30 psig (2.0 bar)
0.45 µm	≥ 25 psig (1.7 bar)	≤ 35 cc/min @ 20 psig (1.4 bar)
0.65 µm	≥ 18 psig (1.2 bar)	≤ 35 cc/min @ 15 psig (1.0 bar)

TYPICAL BACTERIAL RETENTION

0.2 µm	LRV for <i>B. diminuta</i> ≥ 7.8
0.45 µm	LRV for <i>S. marcescens</i> ≥ 8.5
0.65 µm	LRV for <i>S. cerevisiae</i> ≥ 11

FOR MORE INFORMATION

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GTX-296 10-21

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